

DaimlerChrysler AG

Patent claims

- 5 1. An exhaust gas purification system for a motor vehicle, for which predetermined maintenance intervals are provided, having a reducing agent storage tank for storing a reducing agent intended for the exhaust gas purification, characterized in that the filling
10 capacity of the reducing agent tank is selected in such a way that it amounts to at least a level predetermined by an assumed reducing agent consumption during the maintenance interval.
- 15 2. The exhaust gas purification system as claimed in claim 1, characterized in that the reducing agent tank has a closure apparatus which is to be opened for topping-up purposes, the closure apparatus being protected against being opened outside a maintenance
20 operation which is to be carried out by authorized maintenance staff after the maintenance interval has elapsed.
- 25 3. The exhaust gas purification system as claimed in claim 1 or 2, characterized in that level monitoring is provided for the purpose of monitoring the quantity of reducing agent that is present in the reducing agent tank, in such a manner that a warning signal is output when the level drops below a residual filling quantity
30 which results from the remaining running time until the end of the maintenance interval and an assumed consumption rate.
- 35 4. A method for operating a motor vehicle having an exhaust gas purification system and a reducing agent storage tank for storing a reducing agent intended for exhaust gas purification, which comprises predetermined maintenance work after predetermined maintenance intervals, characterized in that a closure device for

the reducing agent storage tank is locked such that it cannot be opened over the course of the maintenance intervals and is unlocked and opened during a maintenance operation after the end of the maintenance interval in order for the reducing agent to be topped up.

5. The method as claimed in claim 4, characterized in that the filling quantity of reducing agent in the reducing agent tank is determined, and a warning signal is output if this quantity drops below a predeterminable minimum filling level.

6. The method as claimed in claim 5, characterized in that a consumption rate for the reducing agent is determined, and this information is used to determine the reducing agent consumption quantity which is to be expected by the end of the maintenance interval, and a warning signal is output if the expected consumption quantity exceeds the filling quantity.

7. The method as claimed in claim 5 or 6, characterized in that after a predeterminable motor vehicle running distance with a warning signal being output has been exceeded, intervention measures are taken in the operation of the motor vehicle, in such a manner as to effect a reduced consumption rate for the reducing agent.

8. The method as claimed in claim 5 or 6, characterized in that after a predeterminable motor vehicle running distance with a warning signal being output has been exceeded, the driving speed of the motor vehicle and/or the rotational speed of the motor vehicle drive engine is restricted.